

IN THE SPECIFICATION

Please amend the paragraph at page 7, line 27 to page 8, line 12 as follows:

Figure 1A is a cross-sectional view showing a preferred embodiment of an optical recording medium to which the method for recording and reproducing data according to the present invention can be applied. An optical recording medium is constituted by forming a first dielectric layer 31, a noble metal oxide layer 4, a second dielectric layer 32, a light absorption layer 5 and a third dielectric layer 33 on a substrate (not shown) in this order. The noble metal oxide layer 4 is constituted by AgOx wherein x is equal to 1, the light absorption layer 5 is constituted by an Ag-In-Sb-Te alloy and each of the first dielectric layer 31 [[31m]] the second dielectric layer 32 and the third dielectric layer 33 is constituted by ZnS-SiO<sub>2</sub>. A laser beam for recording data or reproducing data is irradiated onto the noble metal oxide layer 4 and the light absorption layer 5 via the substrate.

Please amend the paragraph at page 11, line 11 to page 12, line 11 as follows:

Based on the above results, a recording mechanism of data will be considered below. When data are to be recorded in the optical recording medium, namely, the laser beam whose power is set to the recording power level is irradiated thereonto, AgOx is decomposed into Ag and  $x/2 \cdot O_2$  in the noble metal oxide layer 4 constituted by AgOx, and the light absorption layer 5 is crystallized. The oxygen gas generated when data are to be recorded expands in the noble metal oxide layer 4, thereby deforming the noble metal oxide layer 4 and pushing the second dielectric layer 32 and the light absorption layer 5 up, Further, in the noble metal oxide layer 4 constituted by PtOy, similar decomposition occurs. As a result, the second dielectric layer 32 is curved so as to irradiate ~~irradiat~~ upward in Figures 14B and 14C at a region irradiated with the laser beam whose power is set to the recording power level and the light absorption layer 5 becomes thinner at a region irradiated with the laser beam whose

power is set to the recording power level than that therearound, whereby the region serves as a recording mark. It can be considered that the oxygen gas is encapsulated in each void. In order to record data in the optical recording medium in accordance with this mechanism, it is necessary for the following two processes to be performed, namely, it is required that the noble metal oxide is decomposed into a noble metal and O<sub>2</sub> and the oxygen gas generated by the decomposition of the noble metal oxide deforms the noble metal oxide layer 4, thereby deforming the second dielectric layer 32 and the light absorption layer 5. Since the light absorption layer 5 consisting of the typical phase change material is totally crystallized when data are to be recorded, this recording mechanism is different from a recording mechanism in the phase change type optical recording medium which detects a recording mark based on the difference in the reflectivity between the crystal phase and the amorphous phase.

Please amend the paragraph at page 13, lines 11-21 as follows:

In the present invention, noble metal particles once deposited into each void in the noble metal oxide layer 4 by the irradiation with the laser beam do not disappear after reproducing data. Therefore, it is unnecessary to further deposit noble metal oxide particles when data reproduction is repeated. However, since it was found that when the readout power of the laser beam was decreased to 1 mW after data had been reproduced using the laser beam having a readout power of 4 mW as shown in Figure 1C, a CNR could not be measured, it is necessary to irradiate ~~irradiat~~ a laser beam having such a power that data can be reproduced in accordance with the principle of super-resolution limit reproduction when data reproduction is repeated.

Please amend the paragraphs at page 19, lines 10 and 11 as follows:

$y \leq 4$  [ $4 \leq y$ ], more preferably,

$y < 3$

Please amend the paragraphs at page 22, line 25 to page 23, line 6 as follows:

In the case where b representing the content of the element M is too large, the above mentioned characteristics required for the light absorption layer 5 tend to become insufficient. The element M is not particularly limited but it is preferable for the element M to be at least one element selected from a group consisting of In, Ag, Au, Bi, Se, Al, P, Ge, H, Si, C, V, W, Ta, Zn, Ti, Sn, Pb, Pd and rare earth elements (Sc, Y and lanthanoid series elements).

Please amend the paragraph at page 26, lines 11-15 as follows:

In the case of irradiating ~~irradiat~~ a laser beam from the side of the substrate 2, the substrate 2 is formed of a light transmissible material. The material for forming the substrate 2 can be selected from various materials such as resin, glass, metal, ceramic and the like in accordance with the rigidity, transparency or the like required for the substrate 2.